

CLAIMS*See
Fig. 1*

- 5 1. A suspension system for a vehicle wheel set comprising an upper leaf spring and a lower leaf spring each being mounted or mountable on opposed sides of an associated vehicle generally transversely of the associated vehicle axle, one end of each upper and lower leaf spring comprising connection means for attachment thereof to an associated vehicle chassis, and auxiliary spring means mounted in series with the upper leaf spring and arranged to provide the associated vehicle with ride
10 characteristics and dynamic deflection geometry substantially the same as those of a conventional solo leaf spring system as herein defined.
- 15 2. A system according to claim 1, wherein said auxiliary spring means is mounted at an end distant from said associated connection means of the upper leaf spring.
- 20 3. A suspension system for a vehicle wheel set comprising an upper leaf spring and a lower leaf spring each being mounted or mountable on opposed sides of an associated vehicle generally transversely of the associated vehicle axle, one end of each upper and lower leaf spring comprising connection means for attachment thereof to an associated vehicle chassis, and auxiliary spring means mounted in series with the upper leaf spring and arranged to alter its rate in proportion to the imposed
25 load at constant ride height.
4. A system according to any of claims 1, 2 or 3, wherein said auxiliary spring means comprises an air spring.
- 30 5. A system according to any of claims 1, 2 or 3, wherein said auxiliary spring means comprises hydraulic, hydro-pneumatic, electro-mechanical or manual mechanical spring means.

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- 5 6. A system according to any preceding claim, wherein said auxiliary spring means comprises means arranged to detect the height across the vehicle and to adjust the auxiliary spring means to compensate for any difference in height.
- 10 7. A system according to any preceding claim, wherein the components are arranged to obviate or substantially reduce torsion being applied to the axle and thereby maintain the full axle control of a conventional leaf spring system.
- 15 8. A system according to any preceding claim which is further arranged to mimic the dynamic deflection geometry of a conventional leaf spring system around the normal loading range.
9. A system substantially as hereinbefore described with reference to Figure 6 of the accompanying drawings.

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